

**HHS Public Access**

Author manuscript

J Infect Dis. Author manuscript; available in PMC 2019 May 28.

Published in final edited form as:

J Infect Dis. 2017 September 15; 216(Suppl 5): S618–S619. doi:10.1093/infdis/jix243.

Careers in Infectious Diseases: Public Health

Arjun Srinivasan

Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia

Abstract

Public health offers infectious disease physicians a variety of rewarding career options. Our training and skills make us well suited to a variety of roles in public health. This article summarizes some of the options for careers in public health and describes why ID physicians are so well suited to them.

Keywords

Infectious disease careers; healthcare epidemiology; antibiotic stewardship

I didn't know what "public health" really was as a resident or fellow, let alone imagine it would become my career. When I was an infectious diseases (ID) fellow, I was drawn to healthcare epidemiology and antibiotic stewardship because they captured many of the things I liked about the ID field—dealing with a variety of challenging pathogens, interacting with and educating all types of providers, and using problem solving and diagnostic skills to uncover the causes of outbreaks. Beyond all of that, however, was my sense that what I was doing served the larger hospital and patient community by making healthcare safer, one small step at a time. We worked to understand the problems leading to infections and then tried to solve them in a way that would protect future patients and healthcare personnel.

While I was a fellow and junior faculty member, I began doing some research with the Division of Healthcare Quality Promotion at the Centers for Disease Control and Prevention (CDC). My research project was focused on antibiotic stewardship, but interacting with folks at the CDC opened my eyes to the full scope of activities the CDC was conducting in health-care epidemiology. From stewardship to surveillance to outbreak investigations and through informal recommendations and formal guidelines, I saw CDC experts working not only to understand and solve important problems but also to implement solutions. I was hooked. In 2003, I was offered a position to become a "healthcare epidemiologist for the

Correspondence: A. Srinivasan, MD, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, 1600 Clifton Rd, Mail Stop A07, Atlanta, GA 30333.

Publisher's Disclaimer: *Disclaimer.* The findings and conclusions of the report are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Potential conflict of interest. The author: No reported conflicts of interest. The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

country” on the epidemiology team in the Division of Healthcare Quality Promotion, and I jumped at the chance.

Over the past 14 years, I have learned much about the vast range of career options in public health, and I have come to appreciate just how well suited ID specialists are to take advantage of those opportunities. A huge sector of public health is devoted to halting the spread of communicable diseases. As a result, ID physicians feature prominently in all public health organizations. Pick up any ID journal, and you’ll see the work ID specialists do in public health.

Outbreak investigations, related to healthcare, as well as food-and vector-borne diseases, are highly visible and often exciting parts of the job for many of us at CDC and in state and local health departments. CDC’s 2-year public health training program, the Epidemic Intelligence Service, is heavily populated with ID specialists, and for many, the challenge of outbreaks is what led them to the job. It’s certainly among the things that attracted me to CDC.

Outbreak investigations remain one of the most visible things we do in public health, however, there is so much more that we as ID specialists can contribute. Our understanding of pathogen and host interactions and our appreciation of ID epidemiology make us well suited to help develop and run surveillance systems to collect information on existing and novel ID challenges. We can analyze and interpret data in ways that improve our understanding of disease burden and risk factors. More importantly, we use our clinical backgrounds to inform potential interventions and control strategies in settings ranging from tertiary care hospitals to farms and rural villages in the developing world. We also often have the chance to investigate the effectiveness of these interventions through applied research studies conducted with a variety of partners.

Many of us also continue to use our clinical skills to either provide or oversee patient care activities, either in local hospitals and clinics or in public health clinics providing treatment for human immunodeficiency virus, tuberculosis, and sexually transmitted infections and screening and evaluations for outbound or returning travelers. I have the privilege of performing ID consultations at the Atlanta VA Medical Center each year. Seeing patients is not only a powerful reminder of why we went into medicine, but it also gives us the chance to see the evolving challenges and opportunities faced by patients and providers confronting infectious threats. Although some of these opportunities are available via other career paths, I’ve found that a public health career provides a unique way to combine them all, but what really sets public health apart is the potential to translate theories and ideas on preventing infections into practices that will improve, and maybe even save lives.

During my career, I’ve been able to share new information and educate providers, patients and policy makers on best practices through peer-reviewed publications, as well as media interviews and presentations in a host of different venues— including an unforgettable session on preventing Ebola virus transmission in front of about 5000 persons in the Javits convention center in New York, where my talk was preceded by introductory remarks by the governor of New York and mayor of New York! I’ve worked with CDC’s Healthcare

Infection Control Practices Advisory Committee, as well as guideline committees for professional societies, to develop formal recommendations for new practices that might help reduce the risk of infections. These recommendations have been based on data from across the public health spectrum, from outbreaks to surveillance to research and sometimes on a combination of all of them. In some cases, I've worked to move recommendations on to formal policies in collaboration with regulatory or accrediting organizations, as well as payers and purchasers.

Obviously, I have not done any of this alone. The opportunity to work collaboratively with a huge range of partners is one of the other unique aspects of public health that I enjoy and that fits well with my ID training. Think about all of the times that you as an ID physician have been the one coordinating the diagnosis and management of a complex infection with radiology, pathology, surgery and critical care and then working with the pharmacy and nursing staff to ensure that medications were delivered correctly, all the while keeping the patient informed about what was going on. Those are the same skills that I tap into day in and day out when I work to try and influence practices that might protect patients from infections. In addition to making my work vastly more effective and more able to have an impact, these interactions have allowed me to learn so much more than I ever could from the medical literature.

Finally, I would be remiss if I did not mention the diversity of career paths that exist in public health. Some ID specialists in public health are deeply specialized and spend their entire careers working on a single topic or pathogen, often attaining recognition as a national or international expert. Others stay more general and work on all aspects of ID; careers in state and local health departments are especially good opportunities for this. I'm always amazed by my colleagues in state and local health departments who move with ease from a healthcare outbreak to reviewing influenza surveillance data to dealing with a case of multidrug-resistant tuberculosis. Some move between different infections over the course of a career. I can't think of many career options that offer so much diversity and flexibility.

My time in public health has been humbling and immensely rewarding. I am surrounded by many other ID specialists who are passionate about the field and who share a desire to serve the public. Every day, we work with people around the country and globe to try and make them a little safer than they were the day before. It's a pretty great way to make a living.

Supplement sponsorship.

This work is part of a supplement sponsored by the Infectious Diseases Society of America.